

# Winter Rainfall Annual Legumes

CROP/SPECIE	CULTIVARS *PBR # EXCL	SEEDING KG/HA	RAINFALL MM/YEAR	SUITED REGIONS	PLANTING MONTHS	SOIL REQUIRED	REMARKS
<b>Medics</b> <i>Medicago truncatula</i>  <i>Medicago littoralis</i>  <i>Medicago polymorpha</i>	Parabinga Paraggio Sephi * Jester <b>NEW</b>  Angel <b>NEW</b>  Santiago * Polyanna * Bokveld * Robust Scimitar <b>NEW</b> Cavalier <b>NEW</b>	4-7 if sown in mixture 10-12 planted 12-15 broadcast	250+	W Cape, S Cape and E Cape	Apr- May	Well drained loam to clay soils	Medics are well adapted to grazing. Set stocking is normally advised. As a result of the high protein content of the plant material and the dry pods which are eaten during the summer months good animal performance is obtained. Medics is also an outstanding rotational crop with cereals and the advantages are the fixing of nitrogen, the reduction of diseases and the controlling of weeds. DM yields of 8mt/ha are obtainable with a carrying capacity of 4-5 small stock units during winter to 10 small units/ha during spring are possible. An average carrying capacity of 3-5 small livestock units/ha during spring are possible. Due to the hard seed coating the seed is able to establish itself the following year again.
<b>Subterranean Clovers</b> <i>Trifolium subterraneum</i>	Dalkeith * Gosse  Woogenellup * Campeda * Losa <b>NEW</b> * Antas <b>NEW</b> * Urano <b>NEW</b>	4-7 if sown in mixture 10-12 planted 12-15 broadcast	300+	W Cape, S Cape and E Cape	Apr-May	Well drained loam to clay soils Sow Gosse in wet lands	Subterranean clovers are well adapted to grazing. Set stocking is normally advised. As a result of the high protein content of the plant material and the dry pods which are eaten during the summer months, good animal performance is obtained. It is an outstanding rotational crop with cereal and the advantages are the fixing of nitrogen, the reduction of diseases and the controlling of weeds. DM yields of 8 mt/ha are obtainable with a carrying capacity of 4-5 small stock units during winter to 10 small stock units/ha during spring are possible. An average carrying capacity of 3-5 small livestock units/ha throughout the year are possible. Due to the hard seed coating the seed is able to establish itself the following year again.
<b>Balansa Clover</b> <i>Trifolium balansae</i>	Patric * Frontier # McNeil Enduromax <b>NEW</b>	2-4	350+	W Cape, S Cape and E Cape	Apr-May	Widely adapted to most soil types. Can also handle sandy soils and wet soils	Combines well with medics and subterranean clover mixtures. Although there is not much growth during the winter, spring production is good and something to witness. Production of 8 DM/ha is obtainable. Set stocking is advised. Weed control important especially when established. Balansa clover seed is hard coated and this enables the plant to re-establish itself the following year.
<b>Berseem Clover</b> <i>Trifolium alexandrinum</i>	Elite II	5-17	600+ or irrigation	W Cape, S Cape and E Cape	Apr-May	Well drained loam to clay soils	Egyptian clover is an annual temperate clover, which needs establishing each year. It has an erect growth habit and is sensitive to frost. Used mainly for green manuring.
<b>Crimson Clover</b> <i>Trifolium incarnatum</i>	Capreira	5-15	600+ or irrigation	W Cape, S Cape and E Cape	Apr-May	Well drained loam to clay soils	An annual clover used for grazing and hay production as well as green manuring. The seed can vary from 30 to 70% hard coated depending on the conditions during seed production.
<b>Rose Clover</b> <i>Trifolium hirtum</i>	# Sola Hykon	Drilled 5 Broadcast 10	300+	W Cape, S Cape and E Cape	Apr-May	Widely adapted to most soil types but does well on light soils	Rose clover is an annual clover, which can re-establish itself. Set stocking is recommended, with stock just being removed while the plant is flowering to facilitate better seed production.
<b>Boyds Clover</b> <i>Lotus hispidus</i>	Campbell	4-6 pure 2 in mixtures	500+ or irrigation	W Cape, S Cape and E Cape	Apr-May	Widely adapted to most soil types. Can also handle sandy, acid soils and wet conditions	Boyds clover is an annual clover which can re-establish itself. Good production is always found in wet areas alongside vleis areas and low lying fields where water logging is found. Set stocking is advised. Peak production is in spring and early summer.

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<b>Grazing Vetch</b> <i>Vicia dasycarpa</i>	# Max * Capello	20-35 pure 15-25 in mixtures	350+ or irrigation	W Cape S Cape E Cape E Free State NW Province Mphumalanga KZN	Mar-May	Widely adapted to most soils but does well on loam and heavy clays with a neutral to high pH. Will not do on waterlogged soils	Grazing vetch is a fine stemmed annual legume with a creeping/runner growth habit. Produces very good hay and does not cause bloat. Combines well with cereal crops to make good quality hay and silage.
<b>Sweet Vetch</b> <i>Vicia sativa</i>	Lima Blanchefleur Lanquedoc	25-35 pure 15-25 in mixtures	350+ or irrigation	W Cape E Cape E Free State NW Province Mphumalanga KZN	Mar-May	Widely adapted to most soils but does well on loam and heavy clays with a neutral to high pH. Will not do on waterlogged soils	Sweet vetch is a fine stemmed annual legume with an upright growth habit. Produces very good hay and does not cause bloat. Combines well with cereal crops to make good quality hay and silage.
<b>Purple Vetch</b> <i>Vicia atropurpurea</i>	Popany	25 pure 15-25 in mixtures	400+ or irrigation	W Cape E Cape E Free State NW Province Mphumalanga KZN	Mar-May	Widely adapted to most soils but does well on loam and heavy clays with a neutral to high pH. Will not do on waterlogged soils	Purple vetch is a fine stemmed annual legume with an upright growth habit. Produces very good hay and does not cause bloat. Combines well with cereal crops to make good quality hay and silage. The plant is stronger and more hairy than the other vetches.
<b>Pink Serradella</b> <i>Ornithopus sativus</i>	Emena * Barbara Cadiz Margurita - <b>NEW</b> (hardseeded) Erica - <b>NEW</b> (hardseeded)	15-25 pure 10-15 in mixtures	400+ or irrigation	W Cape E Cape E Free State NW Province Mphumalanga KZN	Mar-May	Widely adapted to most soils but does well on acid, sandy soils. It can also take wet soils	Serradella is a prostrate to semi-erect growing annual legume plant. It has a deep, well developed root system which can produce roots up to 1 metre in length. Pink Serradella is not hardseeded and can germinate earlier than expected. This makes it harder to re-establish itself naturally unless there is some summer rain to enable the plant to develop. It is very good as a grazing, hay and silage-producing crop. Combines well with forage cereals. The hardseeded varieties will resow itself the next year.
<b>Yellow Serradella</b> <i>Ornithopus compressus</i>	# Charano # Santorini # King * Yelbeni	2-5 kg	350+	W Cape S Cape E Cape E Free State NW Province Mphumalanga KZN	Mar-May	Widely adapted to most soils but does well on acid, sandy soils. It can also take wet soils.	Serradella is a prostrate to semi-erect growing annual legume plant. It has a deep, well developed root system. Yellow Serradella has a hard-coated seed, making it possible to re-establish itself naturally. Can be mixed with Pink Serradella in initial year. It is very good as a grazing- hay and silage producing crop. Combines well with forage cereals.
<b>Forage Peas</b> <i>Pisum sativum</i>	Slovan <b>NEW</b> Yarrum	120	350+	W Cape S Cape E Cape E Free State NW Province Mphumalanga KZN	May-Jun	Widely adapted to most soils. Does not like poorly drained soils.	Forage peas are palatable and are grown for hay and silage. Although it can take low temperatures, heavy frost can reduce the formation of the pods. It has a great potential as a rotational crop in a cropping system.
<b>Bitter Lupins</b> (narrow leaf) <i>Lupinus angustifolius</i>	SSL6 SSL10	50-70	300+	The whole of South Africa	Apr-May	Poor acid and sandy soils	Biological weed control can be done during the vegetative growing period due to high alkaloid levels in the plant. It is an important rotational crop for soil improvement. The seed is high in protein and is often used to flush feed stock. Also used as a green manure crop.
<b>Sweet Lupins</b> (narrow leaf) <i>Lupinus angustifolius</i>	* Mandelup # Tanjil	50-70	300+	The whole of South Africa	Apr-May	Poor acid and sandy soils	It is an important rotational crop for soil improvement. The seed is high in protein and is often used to flush feed stock. Also used as a green manure crop.

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<b>Sweet Lupin</b> (broad leaf) <i>Lupinus albus</i>	Kiev Hamburg # Astra	100-150	300+	The whole of South Africa	Apr-May	Well drained heavier soils. Does not like waterlogged conditions.	The white lupin is an annual legume, which has a very erect growth habit with a thick woody main stem and a strong taproot. It is an important rotational crop with cereals. It has an excellent feeding value for stock. The pod is not like the bitter lupin and does not shatter easily. Also used for silage when in mixtures.
<b>Sweet Lupin</b> (yellow flower) <i>Lupinus luteus</i>	# Borsaja	50-70	300+	The whole of South Africa	Apr-May	Poor acid and sandy soils	A very important rotational crop with cereals. The seed is also sweet and of high protein content, making it a very good fodder crop for stock. The pods do not shatter easily and is ideal for silage mixtures.
<b>Faba Bean</b> <i>Vicia faba</i>	* Ascot * Cairo Fiesta	140	300+	The whole of South Africa	Apr-May	Prefer heavy soils	It is an important rotational crop with cereals. Can be used as silage with other crops in mixtures.
<b>Biserrula</b> <i>Biserrula pelecinus</i>	Mauro	2-5 kg	300+	W Cape E Cape S Cape	Mar-May	Widely adapted to most soils, but does well in acid, sandy soils	Very good quality forage in terms of dry matter digestibility, metabolisable energy and crude protein. Tolerant to heavy grazing. High seed yield and hardseededness provide seed bank for many years.